

SLA5010

查询SLA5010供应商

N-channel + P-channel

捷多利, 专业PCB打样工厂, 24小时加急出货

3-phase motor drive

External dimensions **A**...SLA

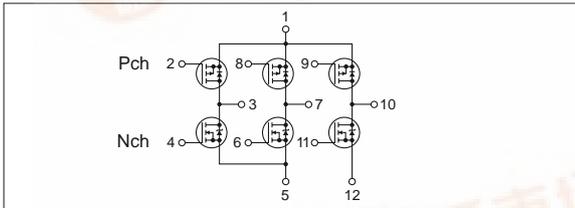
Absolute maximum ratings

(Ta=25°C)

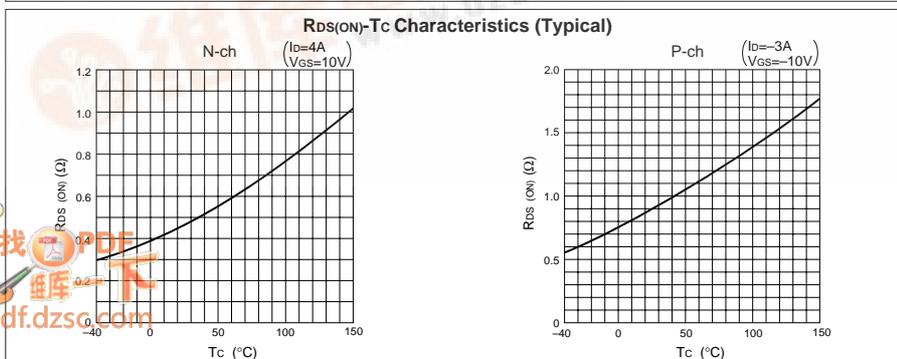
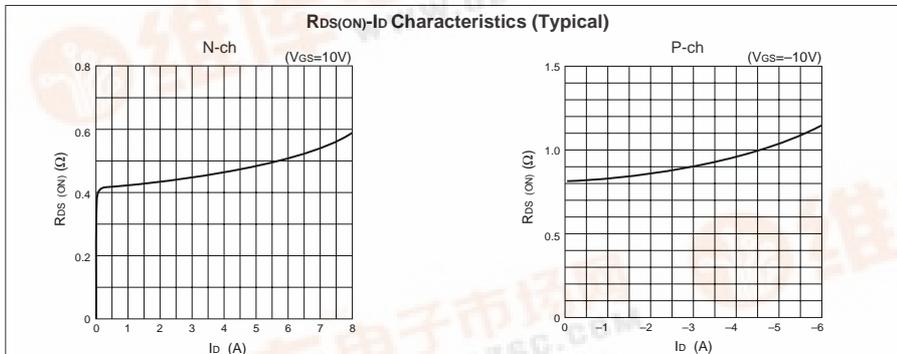
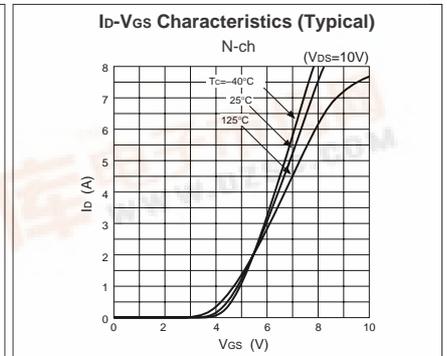
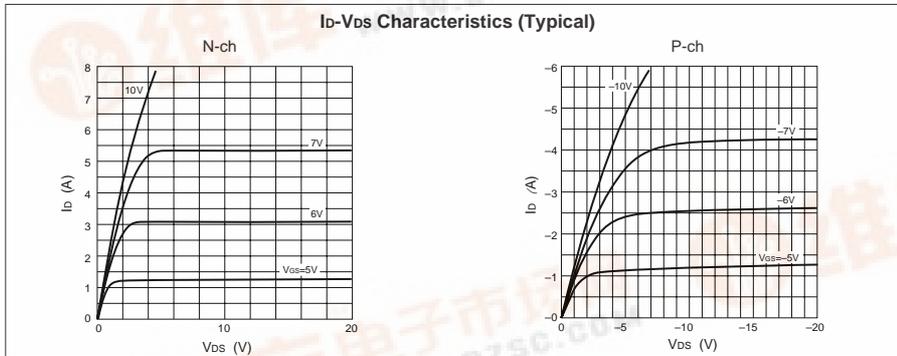
Symbol	Ratings		Unit
	N channel	P channel	
V _{DS}	100	-100	V
V _{GS}	±20	∓20	V
I _D	±4	∓3	A
I _{D(pulse)}	±8 (PW≤1ms)	∓6 (PW≤1ms)	A
E _{AS} *	16	—	mJ
P _T	5 (Ta=25°C, with all circuits operating, without heatsink)		W
	35 (Tc=25°C, with all circuits operating, with infinite heatsink)		W
θ _{j-a}	25 (Junction-Air, Ta=25°C, with all circuits operating)		°C/W
θ _{j-c}	3.57 (Junction-Case, Tc=25°C, with all circuits operating)		°C/W
V _{ISO}	1000 (Between fin and lead pin, AC)		V _{rms}
T _{ch}	150		°C
T _{stg}	-40 to +150		°C

*: V_{DD}=20V, L=1mH, I_D=5A, unclamped, see Fig. E on page 15.

Equivalent circuit diagram



Characteristic curves



SLA5010

Electrical characteristics

($T_a=25^\circ\text{C}$)

Symbol	N channel					P channel				
	Specification			Unit	Conditions	Specification			Unit	Conditions
	min	typ	max			min	typ	max		
$V_{(BR)DSS}$	100			V	$I_D=250\mu\text{A}, V_{GS}=0\text{V}$	-100			V	$I_D=-250\mu\text{A}, V_{GS}=0\text{V}$
I_{GSS}			± 500	nA	$V_{GS}=\pm 20\text{V}$			∓ 500	nA	$V_{GS}=\mp 20\text{V}$
I_{DSS}			250	μA	$V_{DS}=100\text{V}, V_{GS}=0\text{V}$			-250	μA	$V_{DS}=-100\text{V}, V_{GS}=0\text{V}$
V_{TH}	2.0		4.0	V	$V_{DS}=10\text{V}, I_D=250\mu\text{A}$	-2.0		-4.0	V	$V_{DS}=-10\text{V}, I_D=-250\mu\text{A}$
$R_{e(yfs)}$	1.1	1.7		S	$V_{DS}=10\text{V}, I_D=4\text{A}$	0.7	1.1		S	$V_{DS}=-10\text{V}, I_D=-3\text{A}$
$R_{DS(ON)}$		0.50	0.60	Ω	$V_{GS}=10\text{V}, I_D=4\text{A}$		1.1	1.3	Ω	$V_{GS}=-10\text{V}, I_D=-3\text{A}$
C_{iss}		180		pF	$V_{DS}=25\text{V}, f=1.0\text{MHz}$,		180		pF	$V_{DS}=-25\text{V}, f=1.0\text{MHz}$,
C_{oss}		82		pF	$V_{GS}=0\text{V}$		85		pF	$V_{GS}=0\text{V}$
t_{on}		40		ns	$I_D=4\text{A}, V_{DD}=\pm 50\text{V}, V_{GS}=10\text{V}$,		90		ns	$I_D=-3\text{A}, V_{DD}=\pm 50\text{V}, V_{GS}=-10\text{V}$,
t_{off}		40		ns	see Fig. 3 on page 16.		80		ns	see Fig. 4 on page 16.
V_{SD}		1.2	2.0	V	$I_{SD}=4\text{A}, V_{GS}=0\text{V}$		-4.0	-5.5	V	$I_{SD}=-3\text{A}$
t_{rr}		250		ns	$I_{SD}=\pm 100\text{mA}$		250		ns	$I_{SD}=\mp 100\text{mA}$

Characteristic curves

